Now, is this definition to be received without any exception? and does it embrace all the solids and all the fluids of the body? I have stated, that in some cases you will not be able to detect the slightest trace of bile in the stools. This is, however, but an apparent exception; it is perhaps because the bile is too small in quantity to be able to overcome the diluting power of the ingesta, or that the portion of it which finds its way into the digestive tube is too small to be appreciable by our senses under these circumstances. The rule of universal colouring in this disease will not, I believe, hold good; at least there are certain fluids and solids which are tinged only in a very slight degree; but the majority of the textures and fluids have been observed to be more or less distinctly coloured. For instance, we find the jaundiced tint appearing in bone, cartilage, muscle, in the cellular membrane, in the central positions of the teeth, but not in their enamel. It is doubted whether the hair is coloured or not, but it is the opinion of many that it is, and a professional friend of mine has assured me that he has had unquestionable proofs of the colouring of the hair. The membranes of the brain are distinctly tinged. I have seen the arachnoid and pia mater decidedly coloured in a case of dreadful gastro-duodenitis, to which I shall call your attention on a future occasion. The substance of the brain, however, has not been found to partake in this universal discoloration. Frank, who is a good authority on this point, states that the substance of the brain is never coloured, though the membranes may, and most commonly are. In my experience of jaundice, I have found the membranes distinctly coloured, but never could see any tinge of yellowness in *the substance of the brain.* I have, however, observed that when a horizontal section of the brain had been made in such cases, the orifices of the divided vessels, which are denoted by bloody points in the healthy state, seemed to pour out a quantity of yellowish blood, but the substance of the brain appeared white and normal.

With respect to the state of the fluids, you will find the blood distinctly coloured; the saliva also is yellow; the urine is loaded with bile, it stains the linen, and chemical analysis shows that a large proportion of the biliary secretion is blended with it. The perspiration is also tinged with it; and if you apply a blister you find the exuded serum bilious. If a person, labouring under phthisis or bronchitis, should happen to get an attack of jaundice, the pulmonary secretions will be often tinged with yellow. The mucous secretions from the vagina and uterus are also discoloured; but it is an interesting and curious fact, that the milk during lactation seems to escape the general impregnation with bile, and is never tinged. This would appear to be a beautiful provision of nature to prevent the child from being injured. Frank, who witnessed two epidemics of jaundice, one at Mayence, in 1754, and another at Ghent, 1742, states that he has never seen the milk tinged with bile. Dr. Marsh, in his paper on jaundice, mentions that in the case of one unfortunate female a yellow fluid was squeezed from the breasts after death; but this cannot be considered as a proof of the existence of bile in the milk during life.

In jaundice the eye almost always presents a very distinct yellow tinge, and yet it is a curious and interesting fact, that the patients very seldom complain of yellow vision. Out of several thousand cases of jaundice, Frank only met with five in which this symptom was observed.—*Lond. Med. and Surg. Journ. March 15th*, 1834.

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7. *On the Cause of the Yellow Vision in Jaundice.* By William Stokes, M. D.—The occasional occurrence of yellow vision in jaundice has excited a good deal of interest; and Drs. Graves and Elliotson, who have turned their attention to this subject, have made some ingenious and valuable remarks on this singular phenomenon. Dr. Elliotson's opinion is, that where this symptom is complained of, the cornea is in a state of irritation or inflammation, and that under these circumstances its vessels, which in their physiological condition are too small to allow of the passage of coloured fluids, become dilated, so as to carry bilious blood across the field of vision, and thus cause all objects to

wear a yellow hue. To support this opinion, he brings forward the case of a jaundiced patient, who had a considerable degree of inflammation in one eye, but none at all in the other, and who saw objects yellow with the inflamed eye, but of their natural colour with that which was free from inflammation. This case is, indeed, as far as it goes, extremely interesting, but I think it does not prove the point in question, namely, that the cause of jaundiced vision is irritation of the cornea, for it is a fact, that even when the cornea is deeply tinged, yellow vision is not of constant occurrence, nor does it affect all persons alike. One persons sees objects in their natural colours; to another under the same circumstances every object appears to wear a yellow hue, and what is equally remarkable, this yellowness of vision is frequently intermittent; it is present to day and disappears to morrow. These are extremely curious facts.

The object of Dr. Graves on this subject, in the Dublin Medical Journal, is to explain the cause of the absence of yellow vision in certain cases of jaundice. He believes that the humours of the eye frequently escape the jaundiced tinge, and suggests that this may be a beautiful provision of nature for the preservation of sight. From his own observations he states, that the aqueous, and perhaps the vitreous humours escape. But it may be objected to this, that when all the fluids, the blood, the saliva, serum perspiration, &c. are impregnated with bile, how it is possible that the fluids of the eye should escape?—Does it not seem very extraordinary?—It does, certainly; but that it is possible, seems to be established by the following circumstances:—You are not to conclude because all the fluids which are found to exist in the blood are filled with bile, that the secretions, properly so called, which do not exist in the blood, should be also tinged with bilious discoloration. This is the answer which Dr. Graves makes to this objection—I recollect two cases of malignant concerous disease of the liver, which were some time ago in the Meath Hospital, and which presented symptoms of universal jaundice before death. In these cases we found fluids deeply impregnated with bile,—every thing, in fact, seemed bilious and discoloured; and yet you will hardly credit it me when I tell you, that, on opening the gall-bladder, *it was found to contain a quantity of beautifully limpid fluid, perfectly transparent, and of a high refractive power.* Here, then, is a fact to prove that we may have intense general jaundice, and yet find in a sac, existing in a system so diseased, a quantity of fluid perfectly free from any bilious admixture, proving, at least, that it is possible that the humours of the eye may in a similar manner escape. Dr. Graves further remarks, that, even where the humours of the eye happen to become tinged, the alteration in the colour of objects may still escape the observation of the patient; because the change takes place gradually and insensibly. The patient does not think every thing he sees is yellow; he believes still that they are white, because the transition from one colour to the other has been so insensible as to escape his notice. This reasoning may, I think, apply to cases of yellow vision coming on gradually, but will not explain those in which it has been of sudden occurrence. The other cause which Dr. Graves adduces as tending to prevent a patient with a yellow cornea from seeing objects of the same colour is, the want of some standard of comparison to judge by. He has no means of comparing objects; and, though he sees this piece of paper, for instance, (yellow,) he thinks it is white; because every standard he looks to, every other piece of paper he examines, presents the same tinge. Dr. Johnson states, that most of the jaundiced patients, whom he has interrogated, were sensible of the alteration in vision to a greater or less degree, and observes, that the power of appreciating varieties of colour is retained, though we look through a yellow medium not deeply dyed, though yellow, of course, is made to enter into this composition. You will see this observation in the Med. Chir. Review for October last.

I shall conclude this subject with an observation which suggests itself to me, and this is, that the alteration of colour and may vision arise from other causes than the mere jaundiced condition of the eye; and that it may, (I believe this has not been taken notice of before,) depend upon direct nervous influence.

There are cases on record of patients labouring under typhus fever, who, without being in the slightest degree jaundiced, saw every thing yellow. There are also numerous instances of various colours, differing from the natural hues of the objects, being seen by patients in consequence of affections of the nervous system; and hence it is extremely probable that many cases of yellow vision in jaundice may depend upon a functional lesion of the optic nerves. I have one fact to bring forward on this subject of great importance. In the case of jaundice from aneurism of the hepatic artery, the patient saw every thing intensely yellow, until a few days before death, when all yellow vision subsided, and he saw objects of their natural colour, though the jaundice continued, if possible, more intense than ever. In this case there was no inflammation of the eye. I do not think that Dr. Elliotson's observations apply to all cases of this phenomenon. All that he has said is, that where the cornea is in a state of inflammation, there is a greater probability that there will be yellow vision in the affected eye or eyes; and this can be easily accounted for by the increased size of the vessels which the inflammatory process brings on. We may, however, conclude, that in some cases the alteration of vision may be owing to a yellow state of the humours of the eye, that in some it is the result of inflammation, and that in some it may be fairly attributed to a lesion of innervation. I think that the latter statement is borne out by the facts that there is a want of constancy in the occurrence of this phenomenon, that it is often of a more or less intermittent character, being one day present, and another day absent, and that it has been observed in cases where not the slightest symptom of jaundice existed. We must also bear in mind, that some of the most remarkable nervous symptoms commonly occur in jaundice, such as coma, &c.; and we may inquire how far the occurrence of yellow vision may be looked on as an indication of an excited state of the brain, and so lead us to measures calculated to remove impending danger.—*Ibid.*

8. *On Icterus Infantum.* By WILLIAM STOKES, M. D.—One of the first diseases of children is the icterus infantum, or, as it has been termed by nurses, the *yellow gum*. Children, shortly after birth, without any known cause, become suddenly jaundiced, and this, after continuing for some days, goes off, frequently without any treatment. This form of jaundice appears to depend upon some particular irritation of the intestinal canal, which seems to result from the circumstance of the digestive system being called into active exertion for the first time, and receiving a new stimulus from the mother's milk. It is a curious fact, that this form of jaundice generally disappears spontaneously. Now, it is remarkable, in this as well as in other cases, (when we recollect the nature of jaundice, and that there exists in the fluids of the body an irritating substance like bile,) that the effects of an admixture of the biliary secretion with those fluids should not be attended with more striking symptoms. In some instances we shall have intense jaundice without any particular effect upon the economy. There is some itching of skin, ardor urinæ, a little depression of spirits, and vertigo, which last for a few days and then disappear. Dr. Gregory mentions many cases of persons affected with jaundice who went about their ordinary business, and performed all the functions as if in a state of perfect health, eating, drinking, and sleeping in their usual manner. I have myself seen persons who laboured under this affection for more than a year, and yet had all that time their digestion good, their bowels regular, the flow of urine natural, and the circulatory, nervous, and respiratory systems apparently conformable to the standard of health. Dr. Blundell gives the cases of two children who lived for four months, apparently well fed and healthy; and, on opening their bodies, it was found that the biliary ducts terminated in a cul-de-sac, and that, consequently, not a drop of bile had been discharged into the intestines. Sir Everard Home gives a remarkable case of the total absence of the gall-bladder, and no passage of bile into the intestines, occurring in connexion with a perfect state of health. These are curious facts, and should be